9E12

Access DB# 68549

# SEARCH REQUEST FORM

**Scientific and Technical Information Center**

Requester's Full Name: Geoffrey S. Evans Examiner #: 62296 Date: 06/17/2002
Art Unit: 1725 Phone Number 308-1653 Serial Number: 09/775,009
Mail Box and Bldg/Room Location: [redacted]C93-9A Results Format Preferred (circle): PAPER DISK E-MAIL
Tom Dunn's office → CRYSTAL PLAZA 3.
**If more than one search is submitted, please prioritize searches in order of need.**

**********

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Method for controlling configuration of laser induced breakd and AblAT

Co-Inventors (please provide full names): Gerard Mourou; Detao Du; Subrata K. Dutta; Victor Elner; Ron Kurtz; Paul R. Lichter; Xinbing Liu; Peter P. Pronko

Earliest Priority Filing Date: April 8, 1994 L Jeffery A. Squier.

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please do a litigation search for U.S. Patent No. 5,656,186 which has been reissued as RE37,585 E on March 19, 2002.

**********

| STAFF USE ONLY | Type of Search | | Vendors and cost where applicable | |
|---|---|---|---|---|
| Searcher: Mellissa | NA Sequence (#) | | STN | |
| Searcher Phone #: 8-4483 | AA Sequence (#) | | Dialog | |
| Searcher Location: | Structure (#) | | Questel/Orbit | 109.86 |
| Date Searcher Picked Up: 6/17/02 | Bibliographic | | Dr.Link | |
| Date Completed: 6/18/02 | Litigation | ✓ | Lexis/Nexis | 40.00 |
| Searcher Prep & Review Time: 7 | Fulltext | | Sequence Systems | |
| Clerical Prep Time: | Patent Family | | WWW/Internet | |
| Online Time: 7 | Other | | Other (specify) | |

PTO-1590 (8-01)

## Current session 18/06/2002

```
(C) QUESTEL 1994
QUESTEL.ORBIT (TM) 1998                          18/06/02 15*21*27
Last connection: 17/06/02 23*02*10

WELCOME to QUESTEL.ORBIT-Your Guide to INTELLECTUAL PROPERTY
www.questel.orbit.com - Gateway, documentation & IP resource
- New Family displays w LEGAL option, etc: INFO NEWS-PLUSPAT
- PlusPat Family w Legal Status in ONE record: INFO MFAMSTAT
- Now 9 million Images w PlusPat displays : INFO IMG-PLUSPAT
- Latest EP, WO & US Applications in One Alert: INFO APPALERT
- New format and database names, see INFO COMPU-MARK
- File access codes changes: INFO FILECODES
- EPAPAT contains all unique EPTEXT data. EPTEXT file removed
..FILE / ..INFO / ..GUIDE
```

**Query/Command : file pluspat**

```
QUESTEL      - Time in minutes :   0,72
The cost estimation below is based on Questel's
standard price list
                              Estimated cost :    0.62 USD
Cost estimated for the last database search :    0.62 USD
Estimated total session cost                :    0.62 USD

Selected file: PLUSPAT

PLUSPAT - (c) Questel-Orbit, All Rights Reserved.
Comprehensive Worldwide Patents database
New Family Legstat & LEGAL Displays; INFO MFAMSTAT & INFO NEWS-PLUSPAT
Last database update: 2002/06/12 (YYYY/MM/DD) 2002-23/UP (basic update)

Search statement   1
```

**Query/Command : us5656186/pn**

**** SS 1: Results 1**

```
Search statement   2
```

**Query/Command : prt full nonstop legalall**

---

*1 / 1 PLUSPAT - ©QUESTEL-ORBIT - image*

**PN** - **US5656186** A 19970812 **[US5656186]**

**TI** - (A) Method for controlling configuration of laser induced breakdown and ablation

**PA** - (A) UNIV MICHIGAN (US)

**IN** - (A) KURTZ RON (US); LIU XINBING (US); DU DETAO (US); DUTTA SUBRATA K (US); ELNER VICTOR (US); LICHTER PAUL R (US); MOUROU GERARD A (US); PRONKO PETER P (US); SQUIER JEFFREY A (US)

**AP** - US22496194 19940408 [1994US-0224961]

**PR** - US22496194 19940408 [1994US-0224961]

**IC** - (A) B23K-026/02

**EC** - A61B-018/20
B23K-026/06F
B23K-026/36
B23K-026/38B
B23K-026/40B

**PCL** - ORIGINAL (O) : 219121690

**DT** - Corresponding document

**CT** - US4087672; US4114018; US4464761; US4579430; US4630274; US4665913; US4675500; US4727381; US4729372; US4732473; US4733660; US4764930; US4838679; US4839493; US4848340; US4881808; US4901718; US4907586; US4925523; US4930505; US4942586; US4988348; US5062702; US5093548; US5098426; US5141506; US5207668; US5208437; US5219343; US5235606; US5246435; US5269778; US5289407; US5312396; US5335258; US5348018; US5389786; US5454902; US5558789; DE4119024 A1; WO8908529
C.V. Shank, R. Yen, and C. Hirlimann, "Time-Resolved Reflectivity Measures of Femtosecond-Optical-Pulse-Induced Phase Transitions in Silicon", Physical Review Letters, vol. 50, No. 6, 454-457, Feb. 7, 1983.

C.V. Shank, R. Yen, and C. Hirlimann, "Femtosecnd-Time-Resolved Surface Structural Dynamics of Optically Excited Silicon", Physical Review Letters, vol. 51, No. 10, 900-902, Sep. 5, 1983.

C.V. Shank and M.C. Downer, "Femtosecond Dynamics of Highly Excited Semiconductors", Mat. Res. Soc. Symp. Proc., vol. 51, 15-23, 1985.

S. Kuper and M. Stuke, "Femtosecond uv Excimer Laser Ablation", Applied Physics B, vol. 44, 199-204, 1987.

S. Preuss, M. Spath, Y. Zhang, and M. Stuke, "Time Resolved Dynamics of Subpicosecond Laser Ablation", Applied Physics Letters, vol. 62, No. 23, 3049-3051, Jun. 7, 1993.

A.M. Malvezzi, N. Bloembergen, and C.Y. Huang, "Time-Resolved Picosecond Optical Measurements of Laser-Excited Graphite", Physical Review Letters, vol. 57, No. 1, 146-149, Jul. 7, 1986.

D.H. Reitze, X. Wang, H. Ahn, and M.C. Downer, "Femtosecond Laser Melting of Graphite", Physical Review B, vol. 40, No. 17, Dec. 15, 1989.

F. Muller, K. Mann, P. Simon, J.S. Bernstein, and G.J. Zaal, "A Comparative Study of Decomposition of Thin Films by Laser Induced PVD with Femtosecond and Nanosecond Laser Pulses", SPIE, vol. 1858, 464-475, 1993.

International Search Report Form PCT/ISA/210 Dated 31 Jul. 1995 and Mailed 4 Aug. 1995.

M.W. Berns et al., "Laser Microsurgery in Cell and Developmental Biology", Science, vol. 213, No. 31, 505-513, Jul. 1981.

G.L. LeCarpentier et al., "Continuous Wave Laser Ablation of Tissue: Analysis of Thermal and Mechanical Events", IEEE Transactions on Biomedical Engineering, vol. 40, No. 2, 188-200, Feb. 1993.

C. LeBlanc, "Realization and Characterization of a High Intensity Femtosecond Laser

System Based on all Titanium Doped Sapphire", Annales de Physique, vol. 19, No. 1, Abstract, Feb. 1994.

R. Birngruber, C. Puliafito, A. Gawande, W. Lin, R. Schoenlein, and J. Fujimoto, "Femtosecond Laser-Tissue Interactions: Retinal Injury Studies", IEEE Journal of Quantum Electronics, vol. QE-23, No. 10, 1836-1844, Oct. 1987.

B. Zysset, J. Fujimoto, and T. Deutsch, "Time-Resolved Measurements of Picosecond Optical Breakdown", Applied Physics B 48, 139-147 (1989).

B. Zysset, J. Fujimoto, C. Puliafito, R. Birngruber, and T. Deutsch, "Picosecond Optical Breakdown: Tissue Effects and Reduction of Collateral Damage", Lasers in Surgery and Medicine 9:192-204 (1989).

S. Watanabe, R. Anderson, S. Brorson, G. Dalickas, J. Fujimoto, and T. Flotte, "Comparative Studies of Femtosecond to Microsecond Laser Pulses on Selective Pigmented Cell Injury in Skin", Photochemistry and Photobiology vol. 53, No. 6, 757-762 (1991).

N. Bloembergen, "Laser-Induced Electric Breakdown in Solids", IEEE Journal of Quantum Electronics, vol. QE-10, No. 3, (Mar. 1974).

R. Birngruber, C. Puliafito, A. Gawande, W. Lin, R. Schoenlein, and J. Fujimoto, "Femtosecond Laser-Tissue Interactions: Retinal Injury Studies", IEEE Log No. 8716039, (1987).

D. Stern, R. Schoenlein, C. Puliafito, E. Dobi, R. Birngruber, and J. Fujimoto, "Corneal Ablation by Nanosecond, Picosecond, and Femtosecond Lasers at 532 and 625 nm", Arch Ophthalmol, vol. 107, (Apr. 1989).

J. Squier, F. Salin, and G. Mourou, "100-fs Pulse Generation and Amplification in Ti:Al.sub.2 O.sub.3 ", Optics letters, vol. 16, No. 5, (Mar. 1991).

B. Frueh, J. Bille, and S. Brown, "Intrastromal Relaxing Excisions in Rabbits with a Picosecond Infrared Laser", Lasers and Light in Ophthalmology, vol. 4, No. 3/4, (1992), 165-168.

R. Remmel, C. Dardenne, and J. Bille, "Intrastromal Tissue Removal Using an Infrared Picosecond Nd:YLF Ophthalmic Laser Operating at 1053 nm", Lasers and Light in Ophthalmology, vol. 4, No. 3/4, 169-173, (1992).

J. Squier and G. Mourou, "Tunable Solid-State Lasers Create Ultrashort Pulses", Laser Focus World, (Jun. 1992).

M.H. Niemz, T.P. Hoppeler, T. Juhasz, and J. Bille, "Intrastromal Ablations for Refractive Corneal Surgery Using Picosecond Infrared Laser Pulses", Lasers and Light in Ophthalmology, vol. 5, No. 3, pp. 149-155 (1993).

H. Cooper, J. Schuman, C. Puliafito, D. McCarthy, W. Woods, N. Friedman, N. Wang, and C. Lin, "Picosecond Neodymium: Yttrium Lithium Fluoride Laser Sclerectomy", Am. Journal of Opth. 115:221-224, (Feb. 1993).

K. Frederickson, W. White, R. Wheeland, and D. Slaughter, "Precise Ablation of Skin with Reduced Collateral Damage Using the Femtosecond-Pulsed, Terawatt Titanium-Sapphire Laser", Arch Dermatol, vol. 129, (Aug. 1993).

H. Kapteyn and M. Murnane, "Femtosecond Lasers: The Next Generation", Optics &

Photonics News, (Mar. 1994).

G. Mourou, A. Zewail, P. Barbara, and W. Knox, "New Generation of Ultrafast Sources Marked by Higher Powers, Versality", Optics & Photonics News, (Mar. 1994).

D. Du, X. Liu, G. Korn, J. Squier, and G. Mourou, "Laser-Induced Breakdown by Impact Ionization in SiO.sub.2 with Pulse Widths from 7 ns to 150 fs", Appl. Phys. Lett 64 (23), (Jun. 6, 1994).

**STG** - (A) United States patent

**AB** - In one aspect the invention provides a method for laser induced breakdown of a material with a pulsed laser beam where the material is characterized by a relationship of fluence breakdown threshold (Fth) versus laser beam pulse width (T) that exhibits an abrupt, rapid, and distinct change or at least a clearly detectable and distinct change in slope at a predetermined laser pulse width value. The method comprises generating a beam of laser pulses in which each pulse has a pulse width equal to or less than the predetermined laser pulse width value. The beam is focused to a point at or beneath the surface of a material where laser induced breakdown is desired. The beam may be used in combination with a mask in the beam path. The beam or mask may be moved in the x, y, and Z directions to produce desired features. The technique can produce features smaller than the spot size and Rayleigh range due to enhanced damage threshold accuracy in the short pulse regime.

---

*1 / 1 LGST - ©LEGSTAT*

**PN** - US 5656186 [US5656186]

**AP** - US 224961/94 19940408 [1994US-0224961]

**DT** - US-P

**ACT** - 19940408 US/AE-A
APPLICATION DATA (PATENT)
US 224961/94 19940408 [1994US-0224961]

19940902 US/AS02
ASSIGNMENT OF ASSIGNOR'S INTEREST
REGENTS OF THE UNIVERSITY OF MICHIGAN, THE WOLVERINE TOWER, ROOM 2071 3003 S. ST * MOUROU, GERARD A. : 19940407; DU, DETAO : 19940407; DUTTA, SUBRATA K. : 19940407; ELNER, VICTOR : 19940407; KURTZ, RON : 19940407;

19970812 US/A
PATENT

19990928 US/RF
REISSUE APPLICATION FILED
19990804

20010731 US/RF
REISSUE APPLICATION FILED
20000201

20011016 US/RF
REISSUE APPLICATION FILED
20010201

**UP** - 2001-44

---

*1 / 1 CRXX - ©CLAIMS/RRX*

**PN** - 5,656,186 A 19970812 [US5656186]

**PA** - Michigan, University of

**ACT** - 19990804 REISSUE REQUESTED
ISSUE DATE OF O.G.: 19990928
REISSUE REQUEST NUMBER: 09/366685
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1742
Reissue Patent Number: USRE37585

20000201 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20010731
REISSUE REQUEST NUMBER: 09/775069
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1742

Reissue Patent Number:

20010201 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20011016
REISSUE REQUEST NUMBER: 09/775106
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1742

Reissue Patent Number:

---

*1 / 14 PAST - ©Thomson Derwent*

**AN** - 200142-001612

**PN** - 5656186 A [US5656186]

**OG** - 2001-10-16

**ACT** - REISSUE APPLICATION FILED

---

*2 / 14 PAST - ©Thomson Derwent*

**AN** - 200131-001297

**PN** - 5656186 A [US5656186]

**OG** - 2001-07-31

**ACT** - REISSUE APPLICATION FILED

---

*3 / 14 PAST - ©Thomson Derwent*

**AN** - 199951-002770
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*4 / 14 PAST - ©Thomson Derwent*

**AN** - 199950-002719
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*5 / 14 PAST - ©Thomson Derwent*

**AN** - 199949-002630
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*6 / 14 PAST - ©Thomson Derwent*

**AN** - 199948-002873
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*7 / 14 PAST - ©Thomson Derwent*

**AN** - 199947-002840
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*8 / 14 PAST - ©Thomson Derwent*

**AN** - 199946-002899
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*9 / 14 PAST - ©Thomson Derwent*

**AN** - 199945-002802
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*10 / 14 PAST - ©Thomson Derwent*

**AN** - 199944-002326
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*11 / 14 PAST - ©Thomson Derwent*

**AN** - 199943-002793
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*12 / 14 PAST - ©Thomson Derwent*

**AN** - 199941-002696
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*13 / 14 PAST - ©Thomson Derwent*

**AN** - 199939-000730
**PN** - 5656186 A [US5656186]
**OG** - 1999-09-28
**ACT** - REISSUE APPLICATION FILED

---

*14 / 14 PAST - ©Thomson Derwent*

**AN** - 199937-001481
**PN** - 5656186 A [US5656186]
**ACT** - PATENT SUIT

---

*1 / 1 LITA - ©Thomson Derwent*

**AN** - P1999-37-42
**FS** - PATENT (P)
**PN** - US5656186 19970812 (Utility)
**PF** - Positive Lights Incorporated
**DF** - Clark MXR Incorporated
**CT** - CA, Northern Dist.
**DN** - C-99-3937 JL
**FD** - 1999-08-23
**ACT** - A complaint was filed.

**Query/Command : file inpadoc**

```
PLUSPAT      - Time in minutes :   0,51
```

```
The cost estimation below is based on Questel's
standard price list
                              Estimated cost :    1.12 USD
Records displayed and billed   :      1
                              Estimated cost :    1.10 USD
Cost estimated for the last database search :    2.22 USD
Estimated total session cost                :    2.84 USD

LGST         - Time in minutes :   0,04
The cost estimation below is based on Questel's
standard price list
                              Estimated cost :    0.04 USD
Records displayed and billed   :      1
                              Estimated cost :    0.57 USD
Cost estimated for the last database search :    0.61 USD
Estimated total session cost                :    3.45 USD

CRXX         - Time in minutes :   0,03
The cost estimation below is based on Questel's
standard price list
                              Estimated cost :    0.04 USD
Records displayed and billed   :      1
                              Estimated cost :    5.00 USD
Cost estimated for the last database search :    5.04 USD
Estimated total session cost                :    8.49 USD

PAST         - Time in minutes :   0,10
The cost estimation below is based on Questel's
standard price list
                              Estimated cost :    0.19 USD
Records displayed and billed   :     14
                              Estimated cost :   78.54 USD
Cost estimated for the last database search :   78.73 USD
Estimated total session cost                :   87.22 USD

LITA         - Time in minutes :   0,04
The cost estimation below is based on Questel's
standard price list
                              Estimated cost :    0.07 USD
Records displayed and billed   :      1
                              Estimated cost :   10.85 USD
Cost estimated for the last database search :   10.92 USD
Estimated total session cost                :   98.14 USD

Selected file: INPADOC

You are now connected to INPADOC
Covers 1968/1973 thru weekly updates (2002-24)
For information on content, (..)INFO INPD.

Search statement   1
```

**Query/Command : fam us5656186/pn**

```
1 Patent Groups
```

**** SS 1: Results 12**

```
Search statement   2
```

**Query/Command : famstate nonstop**

*1 / 12 INPADOC - ©INPADOC*

**PN** - AT 159880 E 19971115 [ATE159880]

**TI** - VERFAHREN ZUM KONFIGURATIONSTEUERN VON LASERINDUZIERTEM ZERSTOEREN UND ABTRAGEN

**IN** - MOUROU GERARD A [US]; DU DETAO [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**PA** - UNIV MICHIGAN [US]

**AP** - AT 95916130/95-EP 19950329 [1995EP-0916130]

**PR** - US 224961/94-A 19940408 [1994US-0224961]

**IC** - B23K-026/00; A61B-017/22

*1 / 2 LEGALI - ©LEGSTAT*

**PN** - AT 159880 [ATE159880]

**DT** - AT-R

**ACTE** - 19971115 AT/REF-P
CORRESPONDS TO EP-PATENT
(EP 754103 19971105 [EP-754103])

19980415 AT/UEP [+]
PUBLICATION OF TRANSLATION OF EUROPEEN PATENT SPECIFICATION

**UP** - 1998-17

*2 / 2 LEGALI - ©LEGSTAT*

**PN** - EP 754103 [EP-754103]

**AP** - EP 95916130/95 19950329 [1995EP-0916130]

**DT** - EP-P

**ACTE** - 19950329 EP/AE-A
EP-APPLICATION
EP 95916130/95 19950329 [1995EP-0916130]

19970122 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19970122 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

19970122 EP/17P [+]
REQUEST FOR EXAMINATION FILED
960916

19970514 EP/17Q [+]
FIRST EXAMINATION REPORT
970326

19971105 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19971105 EP/B1 [+]
PATENT SPECIFICATION

19971105 EP/REF-R [+]
IN AUSTRIA REGISTERED AS:
(AT 159880 19971115 [ATE159880])

19971114 EP/REG; CH/EP [+]
CH: ENTRY IN THE NATIONAL PHASE
<CH>

19971114 EP/REG; CH/NV
CH: NEW AGENT
BOVARD AG PATENTANWAELTE
<CH>

19971210 EP/ITF [+]
IT: TRANSLATION FOR A EP PATENT FILED
STUDIO TORTA S.R.L.

19971211 EP/REF-P
CORRESPONDS TO:
(DE 69500997 19971211 [DE69500997])

19980220 EP/ET [+]
FR: TRANSLATION FILED

19980311 EP/REG; IE/FG4D
IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
77326
<IE>

19980401 EP/NLV1 [-]
NL: LAPSED OR ANNULED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT; NO LEGAL EFFECT FROM THE DATE OF

19980722 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19981028 EP/26N [+]
NO OPPOSITION FILED

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000216 EP/25 [-]

LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20020101 EP/REG; GB/IF02 [+]
GB: EUROPEAN PATENT IN FORCE AS OF 2002-01-01
<GB>

**UP** - 2002-17

---

*2 / 12 INPADOC - ©INPADOC*

**PN** - AU 22741/95 A1 19951030 [AU9522741]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**IN** - MOUROU GERARD A; DU DETAO; DUTTA SUBRATA K; ELNER VICTOR; KURTZ RON; LICHTER PAUL; LIU XINBING; PRONKO PETER P; SQUIER JEFFREY A

**PA** - UNIV MICHIGAN

**AP** - AU 22741/95-A 19950329 [1995AU-0022741]

**PR** - US 224961/94-A 19940408 [1994US-0224961]
WO 9503863/95(US)-W 19950329 [1995WO-US03863]

**IC** - B23K-026/00; A61B-017/22

*3 / 12 INPADOC - ©INPADOC*

**PN** - AU 684633 B2 19971218 [AU-684633]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**IN** - MOUROU GERARD A; DU DETAO; DUTTA SUBRATA K; ELNER VICTOR; KURTZ RON; LICHTER PAUL; LIU XINBING; PRONKO PETER P; SQUIER JEFFREY A

**PA** - UNIV MICHIGAN

**AP** - AU 22741/95-A 19950329 [1995AU-0022741]

**PR** - US 224961/94-A 19940408 [1994US-0224961]
WO 9503863/95(US)-W 19950329 [1995WO-US03863]

**IC** - B23K-026/00; A61B-017/22

---

*4 / 12 INPADOC - ©INPADOC*

**PN** - CA 2186451 AA 19951019 [CA2186451]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**LA** - ENG

**IN** - MOUROU GERARD A [US]; DU DETAO [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**PA** - UNIV MICHIGAN [US]

**AP** - CA 2186451/95-A 19950329 [1995CA-2186451]

**PR** - US 224961/94-A 19940408 [1994US-0224961]

**IC** - B23K-026/00; A61B-017/22; A61B-017/36

---

*1 / 1 LEGALI - ©LEGSTAT*

**PN** - CA 2186451 [CA2186451]

**DT** - CA-P

**ACTE** - 19960925 CA/REFW-P
CORRESPONDS TO PCT APPLICATION
<WO 9527587> [WO9527587]

**UP** - 1998-31

*5 / 12 INPADOC - ©INPADOC*

**PN** - DE 69500997 C0 19971211 [DE69500997]

**TI** - VERFAHREN ZUM KONFIGURATIONSTEUERN VON LASERINDUZIERTEM ZERSTOEREN UND ABTRAGEN

**IN** - MOUROU GERARD [US]; DU DETAO [US]; DUTTA SUBRATA [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER [US]; SQUIER JEFFREY [US]

**PA** - UNIV MICHIGAN [US]

**AP** - DE 69500997/95-A 19950329 [1995DE-6000997]

**PR** - US 224961/94-A 19940408 [1994US-0224961]
WO 9503863/95(US)-W 19950329 [1995WO-US03863]

**IC** - B23K-026/00; A61B-017/22

*1 / 2 LEGALI - ©LEGSTAT*

**PN** - DE 69500997 [DE69500997]

**DT** - DE-P

**ACTE** - 19971211 DE/REF-P
CORRESPONDS TO
(EP 754103 19971211 [EP-754103])

19980430 DE/8373
TRANSLATION OF PATENT DOCUMENT OF EUROPEAN PATENT WAS RECEIVED AND HAS BEEN PUBLISHED

19981203 DE/8364 [+]
NO OPPOSITION DURING TERM OF OPPOSITION

**UP** - 1998-51

*2 / 2 LEGALI - ©LEGSTAT*

**PN** - EP 754103 [EP-754103]

**AP** - EP 95916130/95 19950329 [1995EP-0916130]

**DT** - EP-P

**ACTE** - 19950329 EP/AE-A
EP-APPLICATION
EP 95916130/95 19950329 [1995EP-0916130]

19970122 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19970122 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

19970122 EP/17P [+]
REQUEST FOR EXAMINATION FILED
960916

19970514 EP/17Q [+]
FIRST EXAMINATION REPORT
970326

19971105 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19971105 EP/B1 [+]
PATENT SPECIFICATION

19971105 EP/REF-R [+]
IN AUSTRIA REGISTERED AS:
(AT 159880 19971115 [ATE159880])

19971114 EP/REG; CH/EP [+]
CH: ENTRY IN THE NATIONAL PHASE
<CH>

19971114 EP/REG; CH/NV
CH: NEW AGENT
BOVARD AG PATENTANWAELTE
<CH>

19971210 EP/ITF [+]
IT: TRANSLATION FOR A EP PATENT FILED
STUDIO TORTA S.R.L.

19971211 EP/REF-P
CORRESPONDS TO:
(DE 69500997 19971211 [DE69500997])

19980220 EP/ET [+]
FR: TRANSLATION FILED

19980311 EP/REG; IE/FG4D
IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
77326
<IE>

19980401 EP/NLV1 [-]
NL: LAPSED OR ANNULED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT; NO LEGAL EFFECT FROM THE DATE OF

19980722 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE

<SE 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19981028 EP/26N [+]
NO OPPOSITION FILED

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20020101 EP/REG; GB/IF02 [+]
GB: EUROPEAN PATENT IN FORCE AS OF 2002-01-01
<GB>

**UP** - 2002-17

---

*6 / 12 INPADOC - ©INPADOC*

**PN** - DE 69500997 T2 19980430 [DE69500997]

**TI** - VERFAHREN ZUM KONFIGURATIONSTEUERN VON LASERINDUZIERTEM ZERSTOEREN UND ABTRAGEN

**IN** - MOUROU GERARD [US]; DU DETAO [US]; DUTTA SUBRATA [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER [US]; SQUIER JEFFREY [US]

**PA** - UNIV MICHIGAN [US]

**AP** - DE 69500997/95-A 19950329 [1995DE-6000997]

**PR** - US 224961/94-A 19940408 [1994US-0224961]
WO 9503863/95(US)-W 19950329 [1995WO-US03863]

**IC** - B23K-026/00; A61B-017/22

---

*1 / 2 LEGALI - ©LEGSTAT*

**PN** - DE 69500997 [DE69500997]

**DT** - DE-P

**ACTE** - 19971211 DE/REF-P
CORRESPONDS TO
(EP 754103 19971211 [EP-754103])

19980430 DE/8373
TRANSLATION OF PATENT DOCUMENT OF EUROPEAN PATENT WAS RECEIVED AND HAS BEEN PUBLISHED

19981203 DE/8364 [+]
NO OPPOSITION DURING TERM OF OPPOSITION

**UP** - 1998-51

---

*2 / 2 LEGALI - ©LEGSTAT*

**PN** - EP 754103 [EP-754103]

**AP** - EP 95916130/95 19950329 [1995EP-0916130]

**DT** - EP-P

**ACTE** - 19950329 EP/AE-A
EP-APPLICATION
EP 95916130/95 19950329 [1995EP-0916130]

19970122 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19970122 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

19970122 EP/17P [+]
REQUEST FOR EXAMINATION FILED
960916

19970514 EP/17Q [+]
FIRST EXAMINATION REPORT
970326

19971105 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19971105 EP/B1 [+]
PATENT SPECIFICATION

19971105 EP/REF-R [+]
IN AUSTRIA REGISTERED AS:
(AT 159880 19971115 [ATE159880])

19971114 EP/REG; CH/EP [+]
CH: ENTRY IN THE NATIONAL PHASE
<CH>

19971114 EP/REG; CH/NV
CH: NEW AGENT
BOVARD AG PATENTANWAELTE
<CH>

19971210 EP/ITF [+]
IT: TRANSLATION FOR A EP PATENT FILED
STUDIO TORTA S.R.L.

19971211 EP/REF-P
CORRESPONDS TO:
(DE 69500997 19971211 [DE69500997])

19980220 EP/ET [+]
FR: TRANSLATION FILED

19980311 EP/REG; IE/FG4D
IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
77326
<IE>

19980401 EP/NLV1 [-]
NL: LAPSED OR ANNULED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT; NO LEGAL EFFECT FROM THE DATE OF

19980722 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19981028 EP/26N [+]
NO OPPOSITION FILED

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20020101 EP/REG; GB/IF02 [+]
GB: EUROPEAN PATENT IN FORCE AS OF 2002-01-01
<GB>

**UP** - 2002-17

---

*7 / 12 INPADOC - ©INPADOC*

**PN** - EP 754103 A1 19970122 [EP-754103]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**LA** - ENG

**IN** - MOUROU GERARD A [US]; DU DETAO [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**PA** - UNIV MICHIGAN [US]

**AP** - EP 95916130/95-A 19950329 [1995EP-0916130]

**PR** - WO 9503863/95(US)-W 19950329 [1995WO-US03863]
US 224961/94-A 19940408 [1994US-0224961]

**IC** - B23K-026/00; A61B-017/22

**DS** - AT* BE* CH* DE* DK* ES* FR* GB* GR* IE* IT* LI* LU* MC* NL* PT* SE*

---

*1 / 3 LEGALI - ©LEGSTAT*

**PN** - DE 69500997 [DE69500997]

**DT** - DE-P

**ACTE** - 19971211 DE/REF-P
CORRESPONDS TO
(EP 754103 19971211 [EP-754103])

19980430 DE/8373
TRANSLATION OF PATENT DOCUMENT OF EUROPEAN PATENT WAS RECEIVED AND HAS BEEN PUBLISHED

19981203 DE/8364 [+]
NO OPPOSITION DURING TERM OF OPPOSITION

**UP** - 1998-51

---

*2 / 3 LEGALI - ©LEGSTAT*

**PN** - AT 159880 [ATE159880]

**DT** - AT-R

**ACTE** - 19971115 AT/REF-P
CORRESPONDS TO EP-PATENT
(EP 754103 19971105 [EP-754103])

19980415 AT/UEP [+]
PUBLICATION OF TRANSLATION OF EUROPEEN PATENT SPECIFICATION

**UP** - 1998-17

---

*3 / 3 LEGALI - ©LEGSTAT*

**PN** - EP 754103 [EP-754103]

**AP** - EP 95916130/95 19950329 [1995EP-0916130]

**DT** - EP-P

**ACTE** - 19950329 EP/AE-A
EP-APPLICATION
EP 95916130/95 19950329 [1995EP-0916130]

19970122 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19970122 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

19970122 EP/17P [+]
REQUEST FOR EXAMINATION FILED
960916

19970514 EP/17Q [+]
FIRST EXAMINATION REPORT
970326

19971105 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19971105 EP/B1 [+]
PATENT SPECIFICATION

19971105 EP/REF-R [+]
IN AUSTRIA REGISTERED AS:
(AT 159880 19971115 [ATE159880])

19971114 EP/REG; CH/EP [+]
CH: ENTRY IN THE NATIONAL PHASE
<CH>

19971114 EP/REG; CH/NV
CH: NEW AGENT
BOVARD AG PATENTANWAELTE
<CH>

19971210 EP/ITF [+]
IT: TRANSLATION FOR A EP PATENT FILED
STUDIO TORTA S.R.L.

19971211 EP/REF-P
CORRESPONDS TO:
(DE 69500997 19971211 [DE69500997])

19980220 EP/ET [+]
FR: TRANSLATION FILED

19980311 EP/REG; IE/FG4D
IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
77326
<IE>

19980401 EP/NLV1 [-]
NL: LAPSED OR ANNULED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT; NO LEGAL EFFECT FROM THE DATE OF

19980722 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19981028 EP/26N [+]
NO OPPOSITION FILED

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20020101 EP/REG; GB/IF02 [+]
GB: EUROPEAN PATENT IN FORCE AS OF 2002-01-01
<GB>

**UP** - 2002-17

---

*8 / 12 INPADOC - ©INPADOC*

**PN** - EP 754103 B1 19971105 [EP-754103]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**LA** - ENG

**IN** - MOUROU GERARD A [US]; DU DETAO [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**PA** - UNIV MICHIGAN [US]

**AP** - EP 95916130/95-A 19950329 [1995EP-0916130]

**PR** - WO 9503863/95(US)-W 19950329 [1995WO-US03863]
US 224961/94-A 19940408 [1994US-0224961]

**IC** - B23K-026/00; A61B-017/22

**DS** - AT* BE* CH* DE* DK* ES* FR* GB* GR* IE* IT* LI* LU* MC* NL* PT* SE*

---

*1 / 3 LEGALI - ©LEGSTAT*

**PN** - DE 69500997 [DE69500997]

**DT** - DE-P

**ACTE** - 19971211 DE/REF-P
CORRESPONDS TO
(EP 754103 19971211 [EP-754103])

19980430 DE/8373
TRANSLATION OF PATENT DOCUMENT OF EUROPEAN PATENT WAS RECEIVED AND HAS BEEN PUBLISHED

19981203 DE/8364 [+]
NO OPPOSITION DURING TERM OF OPPOSITION

**UP** - 1998-51

*2 / 3 LEGALI - ©LEGSTAT*

**PN** - AT 159880 [ATE159880]

**DT** - AT-R

**ACTE** - 19971115 AT/REF-P
CORRESPONDS TO EP-PATENT
(EP 754103 19971105 [EP-754103])

19980415 AT/UEP [+]
PUBLICATION OF TRANSLATION OF EUROPEEN PATENT SPECIFICATION

**UP** - 1998-17

*3 / 3 LEGALI - ©LEGSTAT*

**PN** - EP 754103 [EP-754103]

**AP** - EP 95916130/95 19950329 [1995EP-0916130]

**DT** - EP-P

**ACTE** - 19950329 EP/AE-A
EP-APPLICATION
EP 95916130/95 19950329 [1995EP-0916130]

19970122 EP/AK-A1 [+]
DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19970122 EP/A1 [+]
PUBLICATION OF APPLICATION WITH SEARCH REPORT

19970122 EP/17P [+]
REQUEST FOR EXAMINATION FILED
960916

19970514 EP/17Q [+]
FIRST EXAMINATION REPORT
970326

19971105 EP/AK-B1 [+]
DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION:
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

19971105 EP/B1 [+]
PATENT SPECIFICATION

19971105 EP/REF-R [+]
IN AUSTRIA REGISTERED AS:
(AT 159880 19971115 [ATE159880])

19971114 EP/REG; CH/EP [+]
CH: ENTRY IN THE NATIONAL PHASE
<CH>

19971114 EP/REG; CH/NV
CH: NEW AGENT
BOVARD AG PATENTANWAELTE
<CH>

19971210 EP/ITF [+]
IT: TRANSLATION FOR A EP PATENT FILED
STUDIO TORTA S.R.L.

19971211 EP/REF-P
CORRESPONDS TO:
(DE 69500997 19971211 [DE69500997])

19980220 EP/ET [+]
FR: TRANSLATION FILED

19980311 EP/REG; IE/FG4D
IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
77326
<IE>

19980401 EP/NLV1 [-]
NL: LAPSED OR ANNULED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT; NO LEGAL EFFECT FROM THE DATE OF

19980722 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980826 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19980909 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

19981028 EP/26N [+]
NO OPPOSITION FILED

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

19981111 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000202 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<BE 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<DK 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<GR 97.11.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<LU 98.03.31>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<PT 98.02.05>

20000216 EP/25 [-]
LAPSED IN A CONTRACTING STATE
<SE 98.02.05>

20020101 EP/REG; GB/IF02 [+]
GB: EUROPEAN PATENT IN FORCE AS OF 2002-01-01
<GB>

**UP** - 2002-17

---

*9 / 12 INPADOC - ©INPADOC*

**PN** - JP 9511688 T2 19971125 [JP09511688]

**AP** - JP 526364/95-A 19950329 [1995JP-0526364]

**PR** - WO 9503863/95(US)-W 19950329 [1995WO-US03863]
US 224961/94-A 19940408 [1994US-0224961]

**IC** - B23K-026/00; A61B-017/36

---

*10 / 12 INPADOC - ©INPADOC*

**PN** - US 37585 E1 20020319 [US--37585]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**IN** - MOUROU G EACUTE RARD [US]; DU DETAO [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL R [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**PA** - UNIV MICHIGAN [US]

**AP** - US 366685/99-A 19990804 [1999US-0366685]

**PR** - US 366685/99-A 19990804 [1999US-0366685]
US 224961/94-A5 19940408 [1994US-0224961]

**IC** - B23K-026/02; B23K-026/40

---

*11 / 12 INPADOC - ©INPADOC*

**PN** - US 5656186 A 19970812 [US5656186]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**IN** - MOUROU GERARD A [US]; DU DETAO [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL R [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**PA** - UNIV MICHIGAN [US]

**AP** - US 224961/94-A 19940408 [1994US-0224961]

**PR** - US 224961/94-A 19940408 [1994US-0224961]

**IC** - B23K-026/02

*1 / 1 LEGALI - ©LEGSTAT*

**PN** - US 5656186 [US5656186]

**AP** - US 224961/94 19940408 [1994US-0224961]

**DT** - US-P

**ACTE** - 19940408 US/AE-A
APPLICATION DATA (PATENT)
US 224961/94 19940408 [1994US-0224961]

19940902 US/AS02
ASSIGNMENT OF ASSIGNOR'S INTEREST
REGENTS OF THE UNIVERSITY OF MICHIGAN, THE WOLVERINE TOWER, ROOM 2071 3003 S. ST * MOUROU, GERARD A. : 19940407; DU, DETAO : 19940407; DUTTA, SUBRATA K. : 19940407; ELNER, VICTOR : 19940407; KURTZ, RON : 19940407;

19970812 US/A
PATENT

19990928 US/RF
REISSUE APPLICATION FILED
19990804

20010731 US/RF
REISSUE APPLICATION FILED
20000201

20011016 US/RF
REISSUE APPLICATION FILED
20010201

**UP** - 2001-44

---

*12 / 12 INPADOC - ©INPADOC*

**PN** - WO 9527587 A1 19951019 [WO9527587]

**TI** - METHOD FOR CONTROLLING CONFIGURATION OF LASER INDUCED BREAKDOWN AND ABLATION

**LA** - ENG

**IN** - MOUROU GERARD A [US]; DU DETAO [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**PA** - UNIV MICHIGAN [US]; MOUROU GERARD A [US]; DETAO DU [US]; DUTTA SUBRATA K [US]; ELNER VICTOR [US]; KURTZ RON [US]; LICHTER PAUL [US]; LIU XINBING [US]; PRONKO PETER P [US]; SQUIER JEFFREY A [US]

**AP** - WO US 9503863/95(US)-A 19950329 [1995WO-US03863]

**PR** - US 224961/94-A1 19940408 [1994US-0224961]

**IC** - B23K-026/00; A61B-017/22

**DS** - AM* AT* AU* BB* BG* BR* BY* CA* CH* CN* CZ* DE* DK* EE* ES* FI* GB* GE* HU* IS* JP* KE* KG* KP* KR* KZ* LK* LR* LT* LU* LV* MD* MG* MN* MW* MX* NL* NO* NZ* PL* PT* RO* RU* SD* SE* SG* SI* SK* TJ* TM* TT* UA* UG* US* UZ* VN* KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

---

*1 / 2 LEGALI - ©LEGSTAT*

**PN** - CA 2186451 [CA2186451]

**DT** - CA-P

**ACTE** - 19960925 CA/REFW-P
CORRESPONDS TO PCT APPLICATION
<WO 9527587> [WO9527587]

**UP** - 1998-31

*2 / 2 LEGALI - ©LEGSTAT*

**PN** - WO 9527587 [WO9527587]

**AP** - WO 9503863/95(US) 19950329 [1995WO-US03863]

**DT** - WO-P

**ACTE** - 19950329 WO/AE-A
APPLICATION DATA
WO 9503863/95(US) 19950329 [1995WO-US03863]

19951019 WO/AK-A1 [+]
DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT
AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK TJ TM TT UA UG US UZ VN

19951019 WO/AL-A1 [+]
DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT
KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

19951019 WO/A1 [+]
PUBLICATION OF THE INTERNATIONAL APPLICATION WITH THE INTERNATIONAL SEARCH REPORT

19951207 WO/DFPE
REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE

19951227 WO/121
EP: PCT APP. ART. 158 (1)

19960925 WO/ENP-AA
ENTRY INTO THE NATIONAL PHASE IN:
<CA 2186451>

19970130 WO/REG; DE/8642 [-]
DE: WITHDRAWAL
<DE>

**UP** - 1998-31